PROCEEDINGS

OF THE

ACADEMY OF NATURAL SCIENCES

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STATED MEETING, MAY 4, 1841.

VICE PRESIDENT MORTON in the Chair.

DONATIONS TO MUSEUM.

A collection of Marine, Fresh-water, and Land Shells. From Mr. J. S. Phillips, viz.:

Unio planilateris, U. viridis, Cardium lima, C. costatum, C. flavum, Tellina, (3 species.) Solen diphos, Solen, (2 species.) Cytherea mallaccensis, C. excavata, C. impar, Venus, (2 species.) Crassatella striata, Chama —, Pecten pesfelis, Hinnites Poulsoni, Modiolus —, Isocardia Molktiana, Cucullæa auriculifera, Arca tortuosa, Cancellaria cancellata, Strombus fasciatus, Voluta scapha? Cassis coarctata, C. Massenæ, Pleurotoma tenedo, P. marmorata, Trochus conchyliophorus, C. indicus, Scalaria raricosta, Marginella —, Murex tenuispina, Fusus turricula, Conus imperialis, C. miles, Cypræa picta, C. rufa, C. pulchella, Terebra Africana, Nerita luteostoma? Argonauta hians.

The following species of Land Shells were presented by Dr. Goddard:

Carocolla spinifera, Helecina orbiculata, Helix jejuna? H. appressa, H. concava.

DONATIONS TO LIBRARY.

Atlantic Journal and Friend of Knowledge. By C. S. Rafinesque. 8vo. Philada. 1832.—From Dr. Morton.

Transactions of the Maryland Academy of Science and Literature. Vol. I. part 1, 8vo. Baltimore, 1837.—From the same.

Histoire des Vegetaux Fossiles, &c. Par M. Adolphe Brongniart. 4to. Paris, Nos. 5, 6 and 7.—From the same.

On the Bones of Birds discovered in the strata of Tilgate Forest. By G. Mantell, M. D. 4to.—From the Author.

Third, Fourth, and Fifth General Reports on the Geology of Tennessee. By G. Troost, M. D. 8vo.—From the Author.

Lettre sur le poulpe de l'Argonaute. Par M. de Blainville. 4to. Paris, 1837.—From the Author.

Lettre sur la Generation des Insects. Par M. V. Audouin. 8vo. Paris, 1824.—From Dr. Morton.

Description of the Missourium, or Missouri Leviathan. By Albert Koch. 12mo. 1841.—From Dr. Chaloner.

Anatomie des Coquilles Polythalmes siphonées recentes. Par M. de Blainville. 4to.—From the Author.

Historia de la Conquista de Mexico, Poblacion y Progresos de la America Septentrional: Escriviala don Antonio de Solis y Rivadeneyra. 4to. Madrid, 1776.—From Dr. Ruschenberger.

Verbal Communications.—Dr. Chaloner stated some facts contained in a letter to him from Prof. Andreas del Rio, of Mexico, in relation to an ore of Galena, containing ten per cent. of Cadmium; of which letter a translation will shortly be presented to the Society.

Dr. Morton (Professor Johnson taking the chair) exhibited the embalmed body of an Egyptian Ibis, *Ibis religiosa*, which was unwrapped by him in the Hall of the Academy, on the 10th of April, in the presence of many members and others.

This specimen was one of several sent to Dr. Morton by George R. Gliddon, Esq., United States Consul at Cairo. It was obtained at Saccara, and is probably two thousand five hundred years old. The bird was enveloped in nearly one hundred and fifty folds of the usual linen mummy-cloth, and was found to be in perfect preservation; the head being extended downwards between the legs, and the latter drawn up, with the toes pointing outward: the feathers were generally uninjured, retaining much of their original colour; and it may be confidently asserted, that this is one of the most perfect examples of the art of bird-embalming which has ever been submitted to the inspection of naturalists.

The Ibis, (*Ibis religiosa*,) as a sacred bird, was fed and worshipped in the Egyptian temples; yet it is difficult to imagine in what way they were obtained in such vast numbers as are now found embalmed in the pyramids of Saccara. For example, Pococke, who travelled in Egypt upwards of a century since, expressed a fear that the embalmed Ibis would soon become extinct, in consequence of the daily and wanton destruction of the jars in which they are embalmed; and yet travellers of our own times assure us, after all this protracted devastation, that thousands of these relics remain undisturbed in the pyramids.

The motive for worshipping the Ibis has been variously explained; but the true cause was, no doubt, the appearance of this bird (which is a native of Abyssinia) during the inundation of the Nile, and its departure to the south on the subsidence of the water; for the Egyptians rendered homage to every thing which was connected with a phenomenon on which depended all their hopes of health, plenty, and happiness.

Dr. Morton adverted again to the fact, mentioned at a former meeting, that on first opening one of these Ibis-jars, the wrappings, which were beautifully adjusted, were almost, if not entirely colourless; but that in a short time they assumed the dark brown colour which the bitumen usually imparts to the mummy-cloth.

Prof. Johnson suggested that the exterior wrappings might not have been originally saturated with bitumen, but that they had been applied while clean to the mummy wrapped in the interior saturated folds; and that by slow, insensible transmission, the clean folds had, with the volatilized bituminous matter, become in a manner photogenic, and capable of being turned yellow by the influence of *light* as soon as the jars were opened. He conceived this explanation of the phenomenon by the known agency of *light* on resinous and bituminous substances, more satisfactory than that which had been previously offered, and which ascribed it to the mere presence of *air* admitted on opening the jar. He suggested that the latter explanation would have had more plausibility if the jar had really been hermetically sealed, and *air tight;* which, from its texture, being that of coarse unglazed earthenware, and particularly from the covering of its mouth being a still more coarse unburnt mortar, could not be presumed to be the fact.

Dr. Goddard admitted the action of *light*, in explaining the phenomenon in question; but as he supposed the cloth to have been originally of a yellow or brownish colour, such as it assumes on being removed from the jar, he considered the presence of bitumen not necessary to the change. He cited, in illustration, the Cartoons of Raphael, which, having faded in a moderately lighted room, were subsequently restored to their original colours by exposure to the sun's rays.

Some further observations ensued on the action of light, and its effects in bleaching resins.